

IFW/2826



Docket No.: 3449-0570PUS1  
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Suk-Hun LEE

Application No.: 10/564,404

Confirmation No.: 1794

Filed: January 13, 2006

Art Unit: 2826

For: NITRIDE SEMICONDUCTOR LIGHT  
EMITTING DEVICE

Examiner: Wilson, S.R.

**LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Further to the Information Disclosure Statement filed on February 1, 2007, in the above-identified application, attached is a copied translation of an Office Action dated June 8, 2007, in the corresponding Chinese application. It will be noted from the Chinese Office Action that one (1) of the documents cited in the February 1, 2007, Information Disclosure Statement, i.e., KR-2002-0079659-A, was also cited in the Chinese Office Action.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact James T. Eller, Jr., Reg. No. 39,538 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: August 30, 2007

Respectfully submitted,

By  \_\_\_\_\_

James T. Eller, Jr.

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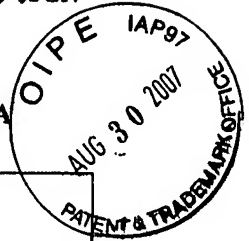
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Application No.:	2004800159493	Date of Notification:
Attorney:	Jinwei GU, Jifu LIU	June 8, 2007
Applicant:	LG INNOTEK CO., LTD.	
Title of the Invention:	NITRIDE SEMICONDUCTOR LIGHT EMITTING DEVICE	

Notification of the First Office Action  
(National Phase of PCT Application)

1. ☒ The examiner has made examination as to substance on the above-identified patent application for invention under Article 35, Para. 1 of the Patent Law of the People's Republic of China (hereafter referred to as "the Patent Law").
- ☐ The State Intellectual Property Office has decided to examine the application on its own initiative under Article 35, Para. 2 of the Patent Law.

2. ☒ The applicant claimed priority/priorities based on the application(s):

filed with KR on October 15, 2003, filed with on  
filed with on, filed with on  
filed with on, filed with on

3. ☐ The applicant submits the amendments on \_\_\_\_\_ and on \_\_\_\_\_  
After examination, \_\_\_\_\_ filed by the applicant on \_\_\_\_\_ are not in conformity with the provision of Rule 51 of the Implementing Regulations of the Chinese Patent Law.

4. ☒ Examination as to substance was directed to the Chinese translation of original international application as filed.

- ☐ Examination as to substance was directed to the documents as specified below:

- ☐ Specification page(s) \_\_\_\_\_ directed to Chinese text of international application submitted when entering Chinese national phase;  
page(s) \_\_\_\_\_ directed to Chinese text of the Annexes of International Preliminary Report of patentability;  
page(s) \_\_\_\_\_ directed to amendments submitted under Article 28 or Article 41 of Patent Cooperation Treaty;  
page(s) \_\_\_\_\_ directed to amendments submitted under Rule 51, Para. 1 of the Implementing Regulations of the Patent Law.  
page(s) \_\_\_\_\_ directed to amendments submitted on \_\_\_\_.
- ☐ Claims \_\_\_\_\_ directed to Chinese text of international application submitted when entering Chinese national phase;  
\_\_\_\_\_ directed to Chinese text of amendments submitted under Article 19 of Patent Cooperation Treaty;  
\_\_\_\_\_ directed to Chinese text of the Annexes of International Preliminary Report of patentability;  
\_\_\_\_\_ directed to amendments submitted under Article 28 or Article 41 of Patent Cooperation Treaty;

☐ Drawings page(s) \_\_\_\_\_ directed to amendments submitted under Rule 51, Para. 1 of the Implementing Regulations of the Patent Law.  
 \_\_\_\_\_ directed to amendments submitted on \_\_\_\_\_.  
 \_\_\_\_\_ directed to Chinese text of international application when entering Chinese national phase;;  
 page(s) \_\_\_\_\_ directed to Chinese text of the Annexes of International Preliminary Report of patentability;  
 page(s) \_\_\_\_\_ directed to amendments submitted under Article 28 or Article 41 of Patent Cooperation Treaty;  
 page(s) \_\_\_\_\_ directed to amendments submitted under Rule 51, Para. 1 of the Implementing Regulations of the Patent Law.  
 page(s) \_\_\_\_\_ directed to amendments submitted on \_\_\_\_\_.

☒ Below is the reference document cited in this Office Action (the reference number will be used throughout the examination procedure):

No.	Number or Title of Reference	Date of Publication (or the filing date of conflicting application)
1	KR2002-0079659A	October 19, 2002
2		

#### 5. Conclusions of the Action:

☐ On the Specification:

- ☐ The subject matter contained in the application is not patentable under Article 5 of the Patent Law.  
☐ The specification does not comply with Article 26, Para. 3 of the Patent Law.  
☐ The specification does not comply with Article 33 of the Patent Law.  
☐ The specification does not comply with Rule 18 of Implementing Regulations of the Patent Law.

☒ On the Claims:

☒ Claim(s) 38

do not have novelty required by Article 22, Para. 2 of the Patent Law.

☐ Claim(s)

do not possess the inventiveness required by Article 22, Para. 3 of the Patent Law.

☐ Claim(s)

does/do not have utility required by Article 22, Para. 4 of the Patent Law.

☐ Claim(s)

is/are not patentable under Article 25 of the Patent Law.

☐ Claim(s)

does/do not comply with Article 26, Para. 4 of the Patent Law.

☒ Claims 37, (1, 24, 34-36)

do not comply with Article 31, Para. 1 of the Patent Law.

☐ Claim(s)

do not comply with Article 33 of the Patent Law.

☐ Claim(s)

does/do not comply with the provisions of Rule 13, Para. 1 of the Implementing Regulations of the Patent Law.

☐ Claim(s)

does/do not comply with the provisions of Rule 2, Para. 1 of the Implementing Regulations of the Patent Law.

- ☒ Claims 1, 2, 7, 8, 14-16, 23-26, 32-36 do not comply with the provisions of Rule 20 of the Implementing Regulations of the Patent Law.
- ☐ Claim(s) does/do not comply with the provisions of Rule 21 of the Implementing Regulations of the Patent Law.
- ☐ Claim(s) does/do not comply with the provisions of Rule 22 of the Implementing Regulations of the Patent Law.
- ☐ Claim(s) does/do not comply with the provisions of Rule 23 of the Implementing Regulations of the Patent Law.
- ☐ divisional application does not comply with the provisions of Rule 43, Para. 1 of the Implementing Regulations of the Patent Law.

For detail analysis of above conclusions of the Action, see the Text of this Notification.

6. In view of the conclusions set forth above, the Examiner is of the opinion that:

- ☐ The applicant should make amendments as directed in the Text of this Notification.
- ☒ The applicant should make arguments in the response to the Notification and make amendments to the application where are deficiencies as pointed out in the Text of the Notification. Otherwise, the application will not be issued a patent.
- ☐ The application contains no allowable invention, and therefore, if the applicant fails to submit reasons or the reasons are not sufficient to prove that the application does have merits, it will be rejected.

7. The followings should be taken into consideration by the applicant in making the response:

- (1) Under Article 37 of the Patent Law, the applicant should respond to the office action within four (4) months from the date of receipt of the Notification. If, without any justified reason, the time limit is not met, the application shall be deemed to have been withdrawn.
- (2) Any amendments to the application should be in conformity with the provision of Article 33 of the Patent Law. Substitute pages should be in duplicate and the format of the substitution should be in conformity with the relevant provision contained in "Examination Guidelines".
- (3) The response to the Notification and/or revision of the application should be mailed to or handed over to the "Reception Division" of Patent Office, and the documents not mailed or handed over to the Reception Division do not have legal effect.
- (4) Without an appointment, the applicant and/or his agent(s) shall not interview with the Examiner in the Patent Office.

8. This Notification contains 2 page(s) Text and following attachments:

- ☒ 1 cited reference, totaling 6 pages.

**Text of the First Office Action**

Application No.: 2004800159493

The present application relates to a nitride semiconductor light emitting device for improving a light output and reliability. After examination, the following comments are presented hereby:

1. The technical solution claimed in claim 38 does not possess novelty under Article 22, Para. 2 of the Chinese Patent Law. Reference document 1 (KR2002-0079659A) discloses a nitride light emitting device, and it particularly discloses the following technical features: "the light emitting device comprises: n-type electrode contact GaN layer 22; an active layer 23 for emitting light formed above the n-type electrode contact GaN layer 22; a p-type GaN layer 24 formed above the active layer; a n-type electrode contact GaN layer 25 formed above the p-type GaN layer to have a super lattice structure" (see Figure 3 and the abstract of the reference). It can be seen that, D1 has disclosed all the technical features of the claim, both the technical solutions are the same. And the technical solution disclosed in D1 and that claimed in the claim 38 belong to the same technical field, solve the same technical problem, and bring about the same technical effect, thus the technical solution sought for protection in the claim 38 does not possess novelty.

2. Independent claim 37 relates to a nitride semiconductor light emitting device. Independent claims 1, 24, 34-36 also relate to a nitride semiconductor light emitting device. The same or relevant technical feature contained in the two groups of claims is "a first electrode contact layer", but this feature belongs to the conventional technical means in the field. Thus the claims are impossible to contain the same or relevant technical features that define a contribution which the invention makes over the prior art, and obviously do not possess unity, and which fail to comply with the provisions of Article 31, Para. 1 of the Chinese Patent Law.

3. The "cluster layer" in claims 1, 7, 8, 14, 15, 24, 25, 32-36 is unclear. "Cluster

layer" neither is the standard term in the art nor has been exactly defined in the description by the applicant. Therefore, the specific meaning of the "Cluster layer" is indefinite, it is unclear that by which substances the "Cluster layer" is formed and how the "Cluster layer" is formed. Thus claims 1, 7, 8, 14, 15, 24, 25, 32-36 fail to comply with the provisions of Rule 20, Para. 1 of the Implementing Regulations of the Chinese Patent Law.

4. The " $\text{SiN}_a$ " in claims 8, 14, 15, 25, 32-26 is unclear. The expression manner thereof is not the standard expression in the art, the meaning and the specific value range for the subscript "a" are unclear. The applicant should state clearly the meaning thereof in the claims, thus claims 8, 14, 15, 25, 32-26 fail to comply with the provisions of Rule 20, Para. 1 of the Implementing Regulations of the Chinese Patent Law.

5. (omitted)

6. The expression " $(\text{In}_x\text{Ga}_{1-x}\text{N}/\text{In}_y\text{Ga}_{1-y}\text{N}$  super lattice)/n-GaN layered structure" in claim 16 is improper; the parentheses herein should be canceled. It can be written as "layered structure formed by  $\text{In}_x\text{Ga}_{1-x}\text{N}/\text{In}_y\text{Ga}_{1-y}\text{N}$  super lattice and n-GaN", in order to comply with the provisions of Rule 20, Para. 1 of the Implementing Regulations of the Chinese Patent Law.

7. The parentheses appeared in claim 23 should be deleted, and the claim can be expressed as "wherein  $0 < x < 0.1$ " instead, in order to comply with the provisions of Rule 20, Para. 1 of the Implementing Regulations of the Chinese Patent Law.

8. The "p-nitride" in claim 33 should be amended into "p-type nitride", in order to comply with the provisions of Rule 20, Para. 1 of the Implementing Regulations of the Chinese Patent Law.

Based on the above reasons, the present application cannot be granted according to

the current text, the applicant should make amendment to the application documents in order to overcome the defects therein, and make arguments for the inventiveness and novelty of the amended claims over the reference document. Any amendment to the application documents should comply with the provisions of Article 33 of the Chinese Patent Law, and it cannot go beyond the scope of the original claims and description. In the meantime, please note that, according to the provisions of Article 38 of the Chinese Patent Law, if the amended text still possesses the defects stated in Rule 53 of the Implementing Regulations of the Chinese Patent Law as pointed out in the Office Action, the present application will be rejected.

Examiner: CHEN LONG

Code: 95A7